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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,891	10/10/2003	Arunabha Ghosh	1033-LB1019	7872

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TOLER SCHAFFER, LLP
8500 BLUFFSTONE COVE
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AUSTIN, TX 78759

EXAMINER

WONG, LINDA

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/683,891

Applicant(s)

GHOSH, ARUNABHA

Examiner

Linda Wong

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15, 18, 19 and 22 is/are rejected.
- 7) ☒ Claim(s) 16, 17, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 7/17/2006 and 11/20/2006 was filed. The information disclosure statement has been considered by the examiner.

Oath/Declaration

2. The oath/declaration was received on 3/12/2004. The oath/declaration is in compliance with 37 CFR 1.67 and accepted.

Drawings

3. The drawings were received on 10/10/2003. These drawings are accepted.

1st Prior Art Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. **Claims 15,18-19,22** are rejected under 35 U.S.C. 102(e) as being anticipated by Lohtia et al (US Patent No.: 5504783).

a. **Claim 15**, Lohtia et al discloses

- "partitioning a group of hopping carrier frequencies into at least two sets of carrier frequencies" (Fig. 2, Fig. 3, Col. 5, lines 3-13)
- "transmitting a first signal in a first sector using a first random sequence of hopping carrier frequencies, wherein consecutive pairs of the hopping carrier frequencies in the first random sequence are from different ones of the at least two sets". (Fig. 3, Col. 5, lines 3-40 discloses different groups of carrier frequencies allocated to each sector and transmitting a signal to a first sector using a hopping list comprising the carrier frequencies as allocated to the first sector in a predetermined or pseudo-random sequence, wherein the set of carrier frequencies allocated to the first sector is different from the carrier frequencies allocated to the second, third sector or second, third group of carrier frequencies (Col. 5, lines 3-13))

b. **Claim 18**, Lohtia et al discloses

- "transmitting a second signal in a second sector using a second random sequence of hopping carrier frequencies" (Fig. 3 and Col. 5, lines 1-40 and Col. 4, lines 53-67)
- "the second sector is proximate to the first sector" (Fig. 3, group 1 for sector 1 is close to group 2 for sector 2)

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- "consecutive pairs of the hopping carrier frequencies in the second random sequence are from different ones of the at least two sets" (Col. 5, lines 10-13)

c. **Claim 19**, Lohtia et al discloses

- "at least one transmitter to transmit a first signal in a first sector using a first random sequence of hopping carrier frequencies" (Fig. 1 shows a diagram of a cellular network, wherein the BS (base stations) shown inherently comprise at least one transmitter to communicate with the cellular devices also shown in the Fig. Please refer to Col. 3, lines 27-54)
- "consecutive pairs of the hopping carrier frequencies in the first random sequence are not from the same one of at least two sets of carrier frequencies into which a group of hopping carrier frequencies are partitioned." (Col. 5, lines 3-40 discloses carrier frequencies for group 1 and 2 where in the carrier frequencies are not the same. Col. 4, lines 59-67 discloses frequency hopping.)

d. **Claim 22**, Lohtia et al discloses

- "at least one transmitter is further to transmit a second signal in a second sector using a second random sequence of hopping carrier frequencies" (Fig. 3 and Col. 5, lines 1-40 and Col. 4, lines 53-67)
- "the second sector is proximate to the first sector" (Fig. 3, group 1 for sector 1 is close to group 2 for sector 2)

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- “consecutive pairs of the hopping carrier frequencies in the second random sequence are not from the same one of the at least two sets.” (Col. 5, lines 10-13)

2nd Prior Art Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 15,18-19,22** are rejected under 35 U.S.C. 102(b) as being anticipated by Kotzin et al (US Patent No.: 5301188).

a. **Claim 15**, Kotzin et al discloses

- “partitioning a group of hopping carrier frequencies into at least two sets of carrier frequencies” (table discloses in Col. 3, lines 35-50 and Fig. 1)
- “transmitting a first signal in a first sector using a first random sequence of hopping carrier frequencies, wherein consecutive pairs of the hopping carrier frequencies in the first random sequence are from different ones of the at least two sets”. (table disclosed in Col. 3, lines 35-50 shows hopping frequencies used for the sectors shown in Fig. 1)

b. **Claim 18**, Kotzin et al discloses

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- "transmitting a second signal in a second sector using a second random sequence of hopping carrier frequencies" (Fig. 1 shows sectors wherein multiple signals can be set to the sectors and the table disclosed in Col. 3, lines 35-50)
- "the second sector is proximate to the first sector" (Fig. 1, group A,B,C for sector 1 is close to group D,E,F for sector 2)
- "consecutive pairs of the hopping carrier frequencies in the second random sequence are from different ones of the at least two sets" (table disclosed in Col. 3, lines 35-50 shows the hopping frequencies wherein different hopping frequencies are found within the groups)

c. **Claim 19**, Kotzin et al discloses

- "at least one transmitter to transmit a first signal in a first sector using a first random sequence of hopping carrier frequencies" (Fig. 2 and 1)
- "consecutive pairs of the hopping carrier frequencies in the first random sequence are not from the same one of at least two sets of carrier frequencies into which a group of hopping carrier frequencies are partitioned." (table disclosed in Col. 3, lines 35-50 shows the hopping frequencies, wherein the hopping frequencies for group A is different from group B)

d. **Claim 22**, Kotzin et al discloses

- "at least one transmitter is further to transmit a second signal in a second sector using a second random sequence of hopping carrier frequencies"

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(Fig. 1 shows sectors wherein multiple signals can be set to the sectors and the table disclosed in Col. 3, lines 35-50, Fig. 2 shows 1 antenna for transmission)

- "the second sector is proximate to the first sector" (Fig. 1, group A,B,C for sector 1 is close to group D,E,F for sector 2)
- "consecutive pairs of the hopping carrier frequencies in the second random sequence are not from the same one of the at least two sets." (table disclosed in Col. 3, lines 35-50 shows the hopping frequencies wherein different hopping frequencies are found within the groups)

Allowable Subject Matter

6. **Claims 1-14** are allowed over prior art.
7. **Claims 16-17,20-21** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Wong whose telephone number is 571-272-6044. The examiner can normally be reached on 9-5.

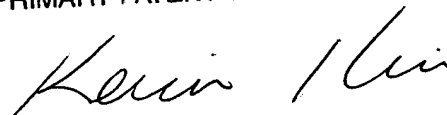
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Linda Wong
2/28/2007

KEVIN KIM
PRIMARY PATENT EXAMINER

A handwritten signature in cursive script, appearing to read "Kevin Kim", is written over the printed name and title.